

**3958. DALEA ASTRAGALINA.**

From Algeria. Presented by Dr. L. Trabut, government botanist, Mustapha-Alger. Received December, 1899. Distributed.

**3959. HEDYSARUM CORONARIUM.****Sulla.**

From Algeria. Presented by Dr. L. Trabut, government botanist. Received December, 1899.

"This leguminous plant, used both for forage and green manure, is much prized in Italy. It is a perennial or biennial. It is said to do best on marl lands and succeeds on deep cold soils. The roots penetrate very deeply—6 feet or more.

Dr. Trabut thinks it is best to sow decorticated seeds at the rate of 10 to 15 pounds to the acre. Many have found it difficult to secure a good stand of sulla and recommend sowing the seed in the husk on wheat stubble and then burning the stubble. The heat is said to facilitate germination. In Algeria it may be sown in autumn before the first rains, and if it germinates well the plant develops enough to be cut the following May. During the following summer the old plants are allowed to go to seed, and at the end of the first year there is a good stand in part composed of the 1-year-old plants and partly of the young seedlings. When well established sulla is said to yield from 40 to 90 tons of green forage to the acre. In Italy it is frequently used in rotations. One which has been successful on the domain of Cologne, near Venice, is a 6-year rotation arranged as follows:

First year, corn with manure; second year, wheat with sulla; third year, sulla with forage; fourth year, wheat with sulla; fifth year, sulla with green manure; sixth year, wheat.

In some parts of Italy sulla succeeds well on sandy loams containing very little lime, but it is highly probable that it will not succeed in soils which entirely lack lime. Most authors agree that it is necessary to have the land free from weeds and very well prepared in order to get a good stand of sulla. In north Africa and in Cyprus it is frequently sown in early spring, which may be found necessary in this country in the cooler regions, where the young plants may be hurt by frosts in winter. It is sensitive to cold and probably will not succeed to the north of the limits of olive and fig culture." (*Swingle.*) Distributed.

**3960. ATRIPLEX NUMMULARIA.****Round-leaved saltbush.**

From Algeria. Presented by Dr. L. Trabut, government botanist, Mustapha-Alger; received December 1, 1899. Distributed.

**3961. HEDYSARUM PALLIDUM.**

From Algeria. Presented by Dr. L. Trabut, government botanist, Mustapha-Alger; received December 1, 1899.

"This is a native north African forage plant which resembles sulla. It is not so promising, but, like the other north African species, shows a remarkable root development. It thrives on steep side hills and has been recommended for trial in olive orchards for green manure." (*Swingle.*) Distributed.

**3962. PYRETHRUM MYCORIS.****Pyrethrum.**

From Algiers. Presented by Dr. L. Trabut, government botanist, Mustapha-Alger; received December 1, 1899. Distributed.

**3964. TRisetum.**

From Lima, Peru. Presented by Dr. Carlos Cisneros, December 15, 1899. Distributed.

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**3966. CALAMAGROSTIS.**

From Lima, Peru. Presented by Dr. Carlos Cisneros, December 15, 1899. Distributed.